at1121exam_practice: Radicals and Squares (v17)

Question 1

Simplify the radical expressions.

$$\sqrt{18} \qquad\qquad \sqrt{98} \qquad\qquad \sqrt{63}$$

Question 2

Find all solutions to the equation below:

$$\frac{(x+7)^2 + 6}{2} = 53$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 12x \;=\; 85$$

Question 4

A quadratic polynomial function is shown below in standard form.

$$y \;=\; 3x^2 + 30x + 81$$

Express the function in **vertex form** and identify the **location** of the vertex.